

IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

EXPANSE NETWORKS, INC.

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PLAINTIFF,

vs.

C.A. NO. 02-CV-2857

CATALINA MARKETING CORP.,

DEFENDANT.

DEFENDANT'S BRIEF IN SUPPORT OF ITS  
MOTION FOR SUMMARY JUDGMENT OF  
INVALIDITY OF THE '129 AND '348 PATENTS

Dated: June 25, 2004

Eric Kraeutler (Pa. Bar No. 32189)  
John V. Gorman (Pa. Bar No. 80631)  
MORGAN, LEWIS & BOCKIUS LLP  
1701 Market Street  
Philadelphia, PA 19103  
Telephone No.: (215) 963-5000  
Facsimile No.: (215) 963-5001

John W. MacPete  
Paul V. Storm  
STORM & HEMINGWAY, L.L.P.  
8117 Preston Road, Suite 460  
Dallas, TX 75225  
Telephone No.: (214) 292-8300  
Facsimile No.: (214) 292-8999

**ATTORNEYS FOR DEFENDANT  
CATALINA MARKETING CORP.**

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## I. INTRODUCTION

Expanse Networks, Inc. (“Expanse”) asserts that defendant Catalina Marketing Corp. (“Catalina”) infringes claims 17, 19, and 20 of U.S. Patent No. 6,216,129 (“the ‘129 patent”) and claims 1, 8, and 17 of U.S. Patent No. 6,298,348 (“the ‘348 patent”). Catalina denies infringement under a proper construction of the claims of the ‘129 and ‘348 patents and asserts that, under Expanse’s proposed construction, each of these claims are invalid based on published prior art. Additionally, if the claims of the ‘129 and ‘348 patents are construed to cover Catalina’s activities, then the claims are invalid based on prior public use activities of Catalina and others. An overview of the patent claims and the bases for invalidity are discussed below.

### A. THE ‘129 PATENT CLAIMS

The ‘129 patent is directed to a computerized system and method for targeting advertisements to particular consumers. The claimed method involves selecting one of several advertisements to present to a consumer by determining the advertisement’s applicability to the particular consumer. *See* Declaration of John Gorman (“Gorman Declaration”), filed concurrently herewith, at Exh. 5, col.2, lns.63-65; col.3, lns.39-42; Claim 17. The method of the ‘129 patent determines the applicability by mathematical operations that calculate correlation factors between two types of vectors—one type representing an individual consumer’s probabilistic demographics and/or product preferences and the other type representing discretionary characteristics of the advertisements’ target audiences. *See id.*, col.2, ln.66-col.3, ln.5. The method then chooses the particular advertisement to be presented to the consumer based on the

correlation factor. *See id.*, col.3, lns.6-25. Claims 17, 19, and 20 of the '129 patent are at issue in this case. These claims are as follows:

17. A computer implemented method for selecting a targeted advertisement for a consumer by comparing a profile of the consumer which is generated from multiple transactions of the consumer to a profile of each of a plurality of advertisements, wherein each advertisement profile identifies discretionary characteristics of an intended target market of the advertisement, the method comprising:

- receiving the advertisement profile for the advertisement;
- retrieving the consumer profile, wherein the multiple transactions used to generate the consumer profile include purchases of the consumer from multiple points-of-sale;
- calculating a correlation factor between the advertisement profile and the consumer profile as a scalar product of the consumer profile and the advertisement profile; and
- selecting the targeted advertisement to present to the consumer responsive to said calculating a correlation factor.

19. The method of claim 17, wherein said retrieving the consumer profile includes

- retrieving a detailed transaction record, wherein the detailed transaction record includes an inventory of each of the multiple transactions which occurred over a predetermined time interval; and
- generating the consumer profile from the detailed transaction record.

20. The method of claim 19, wherein said retrieving the consumer profile further includes retrieving a set of heuristic rules associated with transactions within the detailed transaction records,

- the set of heuristic rules defining a probabilistic measure of demographic characteristics of a person performing the transactions, and
- said generating the consumer profile includes generating the consumer profile based on the detailed transaction record and the set of heuristic rules.

#### **B. THE '348 PATENT CLAIMS**

The '348 patent is directed to a computerized method for creating a profile of individual consumers based on their historical purchases. *See* Gorman Exh. 6, Abstract.

The method of the '348 patent uses historical purchase records of the consumer, along with a set of heuristic rules defining a probabilistic measure that a consumer who purchased a particular product has certain demographic characteristics, to create the profile for the consumer. *See id.*, col.2, lns.48-60. Claims 1, 8, and 17 of the '348 patent are at issue in this case. These claims are as follows:

1. A computer implemented method for generating a profile of a consumer based on multiple purchases made by the consumer that are accumulated in detailed purchase records of the consumer, the method comprising:

retrieving the detailed purchase records;

retrieving product characterization information associated with products included in the detailed purchase records, wherein the product characterization information includes a set of heuristic rules defining a probabilistic measure of demographic characteristics of a purchaser of a product; and

generating a profile of the consumer based on the detailed purchase records and the product characterization information, wherein the profile of the consumer includes a demographic profile of the consumer generated from the detailed purchase records and the set of heuristic rules.

8. The method of claim 1, wherein said generating a profile of the consumer includes generating a product preference profile of the consumer based on the detailed purchase records.

17. A computer implemented method for generating a profile of a consumer based on transactions performed by the consumer at multiple locations, the transactions being recorded and accumulated in detailed transaction records for the consumer, the method comprising:

retrieving the detailed transaction records, wherein the detailed transaction records include an inventory of the recorded transactions of the consumer; and

generating a profile of the consumer based on the detailed transaction records and a set of heuristic rules associated with transactions within the detailed transaction records, the set of heuristic rules defining a probabilistic measure of demographic characteristics of a person performing the transactions.

## II. INVALIDITY

### A. **LEGAL STANDARDS FOR SUMMARY JUDGMENT ON THE ISSUE OF PATENT INVALIDITY**

A patent claim is invalid under 35 U.S.C. §102 if a single prior art reference, that is dated sufficiently in advance of the relevant critical date for the claimed invention under one of the subsections of §102, discloses each element of the claim. 35 U.S.C. §102 (a)-(g); *Crown Operations Int'l, Ltd. v. Solutia, Inc.*, 289 F.3d 1367, 1375 (Fed. Cir. 2002). Such disclosure may be expressly or inherently found in the prior art reference. See *EMI Group N. Am., Inc. v. Cypress Semiconductor Corp.*, 268 F.3d 1342, 1350 (Fed. Cir. 2001). Invalidity or anticipation under §102 is a question of fact; however, a district court may grant summary judgment when the record discloses no genuine material factual issues. See *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1294 (Fed. Cir. 1987).

Although Catalina disputes the propriety of Expanse's claim construction on both the '129 and '348 patents, for purposes of establishing invalidity, Catalina will rely on the claim construction argued by Expanse.<sup>1</sup> Catalina also believes that one or more of the claims of the '129 and '348 patents are invalid based on Catalina's construction, but for purposes of summary judgment Catalina is relying on Expanse's construction to eliminate any potential underlying questions of fact to the claim construction (such as disputes over expert opinions on the meanings of claim terms), which is otherwise purely a matter of law. A copy of Expanse's construction is attached to the Gorman Declaration

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<sup>1</sup> As explained in Catalina's Markman Brief, the submission produced by Expanse on June 17, 2004 (the date the parties were to exchange claim constructions under the Court's June 1, 2004 Amended Scheduling Order), did not construe all of the claim terms in dispute.

as Gorman Exhibit 1. To the extent Expanse has not provided a construction for a particular claim term or element, the invalidity arguments related to Catalina's prior public use are based on the claim construction implied by Expanse in its charge of infringement against Catalina – at least some of the activities that are accused of infringing were in public use before the relevant critical date under §102. Catalina is not agreeing with Expanse's construction and no admission is intended in relying on this construction for purposes of establishing invalidity.

**B. INVALIDITY OF CLAIMS BASED ON THE '257 PATENT**

U.S. Patent No. 5,758,257 (the '257 patent, issued to Herz et al.) discloses a computerized method for selecting data (television programming or advertisements) to be received by a customer based on a profile of the customer that is generated from records of the customer's television viewing habits (or product purchases). *See* Gorman Exhibit 2, Abstract; col.8, lns.17-21. The invention of the '257 patent is primarily directed to targeting or customizing video or television programming for customers. *See* Gorman Exhibit 2, Abstract. According to the '257 patent, a customer's viewing habits are monitored with records indicating what the customer watched and when. These records are used to create a profile of the customer, including the customer's preference for certain types of programming and the customer's demographic characteristics. *See* Gorman Exhibit 2, Abstract. Similar characteristic information, such as program genre, is stored regarding various programs available for viewing. A computer program determines by mathematical operation which of the available programs are best suited for the customer based on the customer's profile. *See* Gorman Exhibit 2, Abstract. The

invention of the '257 patent is specifically applicable to other types of selection of other types of data for customers, including targeted advertisements. The specific disclosure of the '257 patent, and its remarkable similarity to the "inventions" in the '129 and '348 patents, is discussed below.

### **1. The '257 Patent is a §102(e) Reference**

Expanse has not provided any evidence that the inventions claimed in the '129 and '348 patents are entitled to an invention date any earlier than December 1, 1998. *See* Gorman Exhibit 3, April 28, 2004 Deposition of Eldering, pp.180-181. On November 29, 1994, more than four years prior to Dr. Charles Eldering's alleged "invention" of the methods claimed in the '129 and '348 patents, Herz et al. filed the application that led to the issuance of the '257 patent. The '257 patent issued on May 26, 1998.

The '129 and '348 patents are invalid under 35 U.S.C. §102(e) if each claimed element is described in a patent granted on an application for patent by another before Dr. Eldering invented the claimed inventions of the '129 and '348 patents. *See* 35 U.S.C. §102(e). As the '257 patent was filed prior to Dr. Eldering's invention of the methods claimed in the '129 and '348 patents, it qualifies as a prior art reference for purposes of §102(e). As discussed in detail below, the '257 patent discloses each of the elements of the claims at issue, rendering them invalid under §102(e).

### **2. The '257 Patent Discloses Each of the Elements in the Claims at Issue**

#### *a) Computer Implemented Method*

Each of the claims at issue are for computer implemented methods, which according to Expanse's construction is a procedure or process performed on a computer.

*See* Gorman Exhibit 1. The '257 patent plainly discloses implementing one or more steps of the selection method by using a computer, like the “procedure or process performed on a computer” according to Expanse’s construction of claims 17 (and consequently dependent claims 19 and 20) of the '129 patent and claims 1 (and dependent claim 8) and 17 of the '348 patent. The specification of the '257 patent states that “the agreement matrix of the invention may be used to facilitate text retrieval in a computer database system and may be implemented in a kiosk or personal computer designed to assist in the selection of movies, music, books, and the like.” *See* Gorman Exhibit 2, col.8, lns.17-21 (emphasis added). It also provides that the customer profile and a profile of the content of the data to be selected “are compared mathematically in a computer.” *See* Gorman Exhibit 2, col.10, lns.7-12 (emphasis added). Therefore, the '257 patent plainly discloses a “computer implemented method” like that claimed in claims 17, 19, and 20 of the '129 patent and claim 1, 8, and 17 of the '348 patent.

*b) Selecting a Targeted Advertisement by Comparing*

The computer implemented method of claim 17 of the '129 patent (and its dependent claims 19 and 20) is for selecting a targeted advertisement by comparing advertisement profiles to a consumer profile. Expanse has not construed this element; however, selection of data to be sent to the customer is explicitly disclosed in the '257 patent. The specification states that the “agreement matrix can also be used to select infomercials or other advertisements that the customer is most likely to watch.” *See* Gorman Exhibit 2, col. 47, lns. 63-65 (emphasis added). Moreover, the '257 patent explicitly discloses a comparison of profiles: “the content profiles describe the contents

of video programs and are compared mathematically in a computer to customer profiles to generate an agreement matrix which establishes the degree of correlation between the preferences of the customer or customers and the video programming available during each video programming time slot.” *See* Gorman Exhibit 2, col.10, lns.7-13 (emphasis added).

Although the '257 patent disclosure primarily relates to the selection and receipt of television or video programming, it also explicitly discloses that the method may be used for other forms of data, including targeted advertising. *See* Gorman Exhibit 2, col.4, lns.34-38; col. 47, ln.53-col.48, n.22. Specifically, the '257 patent specification states that “the technique of the invention may be applied to match customer profiles for such disparate uses as computerized text retrieval, music and music video selection, home shopping selections, infomercials, and the like.” *See* Gorman Exhibit 2, col.4, lns.34-38 (emphasis added). Therefore, the '257 patent plainly discloses use of the invention to select advertisements by comparing, just like claim 17 of the '129 patent.

*c) Consumer Profile*

Each of the claims at issue requires a consumer profile that is generated based on the consumer’s purchase or transaction records. Expanse has construed “profile” to mean “a description of one or more significant features or characteristics of a consumer,” which is created from purchase or transaction records, which includes multiple items purchased on a single shopping trip and a single item purchased on multiple shopping trips, and purchases occurring at more than one location. *See* Gorman Exhibit 1. The '257 patent discloses generation of just such a profile.

Specifically, the '257 patent discloses a customer profile both for an individual customer and for clusters or groups of customers. *See* Gorman Exhibit 2, col.4, lns.59-60 (“one or more profiles are created for each customer”) and col.30, lns.11-13 (“Passive feed back can be used to both improve individual customer profiles and to improve customer profiles for clusters of customers.”). The customer profile in the '257 patent includes characteristics regarding the customer’s preferences for programming, the customer’s mood during different times of the day or week, which are the same type of discretionary characteristics contemplated by claim 17 of the '129 patent and the product preference characteristics in claim 8 of the 348. *See* Gorman Exhibit 2, col.4, lns. 60-64; col.5, lns.23-33.

The customer profile in the '257 patent may also include demographic information, such as age, gender, race, residence zip code, and other sociodemographic, just like the discretionary demographic characteristics of claims 17 and 19 of the '129 patent and the demographic characteristics in claims 1, 8, and 17 of the '348 patent. These demographic characteristics may be initially based on information directly provided by the customer (i.e. deterministic data) or may be based on educated guesses formed from information regarding other customers with similar habits, with the profile characteristics being updated based on the particular customer’s actual viewing habits or “records of customer purchases.” *See* Gorman Exhibit 2, col.48, lns.5-22.

Because the customer profile is compared to the content profile in the '257 patent, as discussed below, the characteristics in the consumer profile correspond to the content characteristics for the particular type of data (i.e. targeted advertisement) that is being

considered for selection. *See* Gorman Exhibit 2, col.9, ln.67-col.10, ln.5. These characteristics include a wide range of topics, including characteristics related to “life experiences and emotions” and “scientific, socio-political, cultural, imagination evoking, or psychological content.” *See* Gorman Exhibit 2, col.11, lns.52-58. The characteristics may also be specifically related to program preferences (or product preferences), such as program genre (western, comedy, etc.), directors, actors, sexual content, violence, and profanity. *See* Gorman Exhibit 2, col.11, lns.45-52. One of ordinary skill in the art would understand this disclosure to similarly apply to characteristics related to products purchased for the targeted advertising aspect of the invention disclosed in the '257 patent.

*d) Generated from Purchases and Retrieved*

Each of the claims at issue require the consumer profile to be generated from purchase records that are retrieved. The parties have stipulated to the meaning of “retrieving” as meaning to locate data in computer storage, so it can be displayed on a screen and/or processed. *See* Gorman Exhibit 9. Expanse has construed “generating” as meaning “the process of creating.” *See* Gorman Exhibit 1. Just like the claims of the '129 and '348 patents, the '257 patent discloses that the customer profiles are generated based on records regarding the customer’s selection of various programming, or in the context of targeted advertising, the customer’s actual purchases. “In accordance with the invention, a passive feedback technique is provided whereby the programming viewed by the customers are automatically monitored and used to adjust the customer profiles.” *See* Gorman Exhibit 2, col.14, lns.4-7. This “passive feedback” technique is explicitly described in the '257 patent as being applicable to “targeted marketing opportunities.”

*See Gorman Exhibit 2, col.29, lns.65-67.*

Moreover, the '257 patent specification explicitly discloses basing the customer profile information on “what the consumer has actually purchased,” which is the same as generating the consumer profile from transactions in claim 17 of the '129 patent. *See Gorman Exhibit 2, col.47, ln.66-col.48, ln.4* (emphasis added). The '257 patent also discloses pay-per-view programming as a type of programming that can be used to create the consumer’s profile, which is also the same as purchases made by a customer. *See Gorman Exhibit 2, col. 7, lns.41-42.* The customer profile of the '257 patent may also be “established by having the customer select a few of his or her favorite movie or television shows [similar to the customer purchasing his or her favorite products] and then using the content profiles of those movies or shows to construct a customer profile.” *See Gorman Exhibit 2, col. 37, lns.52-56.* As discussed above, the characteristics in the customer’s profile are also updated based on actual programs watched or purchases made. *See Gorman Exhibit 2, col.48, lns.5-22.*

The '257 patent discloses use of the selection method for creating consumer profiles based on a variety of purchases, such as home-shopping and purchases made at “video, music and/or bookstores.” *See col.4, lns.34-38; col.49, lns.32-35.* The types of purchases used to update the consumer profile include movie rentals. *See col.49, lns.54-58.* The disclosure of these different types of purchases for completing or updating the consumer profile is the same as purchases from multiple locations (since home-shopping is a different location than a video or bookstore) as in claim 17 (and claims 19 and 20) of the '129 patent.

Moreover, the '257 patent inherently discloses that the customer profile is generated from “a single item [purchased] on multiple shopping trips occurring at more than one location,” according to Expanse’s construction. The '257 patent clearly discloses generating a customer profile based stored data regarding multiple, discreet programs watched on different channels over different periods of time, and at different locations (such as hotels). *See* Gorman Exhibit 2, col.22, lns.22-23 (“customer’s preferences are differentiated mostly by time slots (hours)’); col.46, lns.47-50 (“customer profile data and/or records of the viewing habits of the customer are stored in memory 1012 and used in the calculation of the agreement matrix’); col.31, ln.64-col.33, ln.32 (discussing updating customer profile based on different programs watched on different channels at different times); col.49, lns.23-30 (describing use of a customer ID to track programs viewed by the customer away from home, such as a hotel). It also clearly discloses application of the invention, and particularly the passive feedback method for updating the consumer profile, to targeted advertising based on records of purchases (plural) made by the consumer. *See* Gorman Exhibit 2, col.29, lns.65-67; col.47, lns.55-59; col.48, lns.15-22. Therefore, the '257 patent inherently discloses generating the customer profile based on purchases made on different “shopping trips” at more than one location. Even without the disclosure of the different program/different channel/different time feature of the '257 patent, the disclosure of “purchases” itself means multiple purchases, which implies a single item purchased on multiple shopping trips at different locations as in claim 17 (and claims 19 and 20) of the '129 patent and claim 17 of the '348 patent.

The customer profile and records regarding programs actually viewed (which is analogous to the disclosure of purchases actually made by the customer) are stored in the computer's memory, such as in a database, according to the '257 patent. The '257 patent specification provides that "the customers' preferred characteristics (customer profiles) are created and stored in a database." *See* Gorman Exhibit 2, col.25, lns.7-8. The data or records regarding the customer's viewed programs is also stored in a database. *See* Gorman Exhibit 2, col.46, lns.65-67 ("In particular, telephone interface 1020 provides a reverse path for collecting the customer profile and viewing habit data from memory 1012 in a database..."); claim 84 ("wherein said monitoring means stores, at each customer's set top terminal, a record of the video programs actually watched by the customer at the customer's location").

*e) Advertisement Profile and Received*

In addition to the consumer profile, claims 17, 19 and 20 of the '129 patent have a step for receiving an advertisement profile. Expanse has not construed the terms received or advertisement profile, *per se*, but it is presumed that Expanse relies on the same construction used with respect to consumer profile – one or more significant characteristics or features. *See* Gorman Exhibit 1. As with the consumer profile, the '257 patent discloses an advertisement profile with one or more characteristics of the advertised product, or similar profile for the other types of data contemplated by the '257 patent. Specifically, the '257 patent discloses comparing the consumer profile to a content profile for the particular type of data being considered for selection, such as a profile for a video program. *See* Gorman Exhibit 2, col.4, lns.41-43; col.9, lns.30-33

(“The present invention relates to a customer profile system in which characteristics of a data source are quantified in some objective manner and stored as content profiles...”). The profiles for video programs disclosed in the '257 patent “include characteristics which are useful in defining the characteristics of video programming.” *See* Gorman Exhibit 2, col.9, ln.67-col.10, ln.2. The '257 patent also recognizes that “when the present invention is used to assist in the selection of data from other data sources [such as advertisements], the content and customer profiles will include completely different characteristics [different from characteristics of video programming].” *See* Gorman Exhibit 2, col.10, lns.2-5.

In addition to video profiles and the recognition of content profiles for other data sources, the '257 patent also explicitly discloses a content profile for products available for purchase, which is the same as a profile for an advertisement of a product available for purchase. Specifically, the specification of the '257 patent states that “products available for purchase can be characterized using different attributes.” *See* Gorman Exhibit 2, col.47, lns.60-63. This indicates a description of one or more significant features of each advertised product available for purchase.

The characteristics included in the content profiles according to the '257 patent include a wide range of topics listed above with respect to the consumer profile, including characteristics related to “life experiences and emotions” and program genre (western, comedy, etc.), directors, actors, sexual content, violence, and profanity. *See* Gorman Exhibit 2, col.11, lns.45-52; col.11, lns.52-58. Additionally, the '257 patent provides guidelines for selecting characteristics for the profiles, including characteristics

that are “descriptive of features of the programs,” and that the characteristics should be “fairly inclusive, including all the common features of the programs.” Gorman Exhibit 2, col.11, lns.30-40. One of ordinary skill in the art would understand this disclosure to similarly apply to characteristics related to products being advertised for the targeted advertising aspect of the invention disclosed in the '257 patent. Additionally, these characteristics plainly include discretionary characteristics as contemplated in claims 17, 19, and 20 of the '129 patent.

Expanse has not construed the term “received”; however, the '257 patent explicitly discloses that the content profiles, or in this case the advertisement profiles, are “received.” *See* Gorman Exhibit 1; Gorman Exhibit 2, col.25, lns.16-17 (“The content profiles are received...”); col.45, lns.17-20 (“The associated content profile (program characteristics lists) is preferably received with the electronic program guide data and stored in memory.”).

#### *f) Intended Target Market*

Claim 17 of the '129 patent (and its dependent claims 19 and 20) require the advertisement profile to identify discretionary characteristics of its intended target market. Likewise, the '257 patent discloses that the characteristics in the content profile are characteristics of an intended target audience, or target market (which are terms not construed by Expanse) in the case of the targeted marketing aspect of the invention. The invention of the '257 patent is directed at providing customers with data sources (video, music, advertisements) that are well suited to that customer's or those customers' particular taste, preference, and lifestyle. The specification provides as follows:

The present invention relates to a system and method for controlling broadcast of and/or customer access to data such as video programs in accordance with objective profile data indicative of the customer's preferences for that data. More particularly, a preferred embodiment of the invention relates to a system and method for determining from objective profile data of the customers which data or video programming is most desired by each customer so that the customers may receive data or video programming customized to their objective preferences.

*See Gorman Exhibit 2, col.1, lns.8-17; see also id., Abstract (“A system and method for scheduling the receipt of desired movies...”).* The content profile is therefore designed to include characteristics of customers that are intended to receive that particular data based on the desirability of the characteristics in the content profile to that particular customer. For example, the content profile for the program Bonanza would include the characteristic “western” because it is intended to target people who like westerns. Moreover, the '257 patent specifically provides “that the combined features of the program categories [the virtual video channel] carries match the preferences of its target customers.” *See Gorman Exhibit 2, col.37, lns.29-31 (emphasis added).* This would be similarly applicable to advertisements for products in the '257 patent, just as in claim 17 (and dependent claims 19 and 20) of the '129 patent.

*g) Calculating a Correlation Factor and Scalar*

The method claimed in claim 17 of the '129 patent (and its dependent claims 19 and 20) also include the step of calculating a correlation factor between the consumer and advertisement profiles as a scalar product. Expanse did not construe “calculating a correlation factor,” but did construe “scalar” to mean “a number, numerical quantity, or element in a field.” *See Gorman Exhibit 1.* This element, according to Expanse’s

construction, is disclosed in the '257 patent.

Again, the object of the '257 patent is to compare the similarity between characteristics in the customer's profile and those in the content profile to select the content that is most suitable for the customer. The '257 patent refers to this as an "agreement matrix" and expressly states that the comparison determines the "degree or correlation" between the profiles. According to the '257 patent, "the content profiles describe the contents of video programs and are compared mathematically in a computer to customer profiles to generate an agreement matrix which establishes the degree of correlation between the preferences of the customer or customers and the video programming available during each video programming time slot." *See* Gorman Exhibit 2, col.10, lns.7-13 (emphasis added).

The '257 patent uses a specific mathematical procedure to calculate an "agreement scalar" that is part of the agreement matrix. *See* Gorman Exhibit 2, col.5, ln.57-col.6, ln.3 ("In particular, the agreement matrix determining step preferably comprises the step of determining a distance in multidimensional characteristic space between a customer profile and a content profile by calculating an agreement scalar for common characteristics..."); col.19, lns.6-8 ("The calculated agreement scalars, ac, form an agreement matrix, AC, which provides measurements of the similarity between the customer profiles and the content profiles."). The actual mathematical steps used to calculate this scalar are complex, but the result of the calculation is a numeric value, which fits within Expanse's construction of "scalar" in claim 17 (and dependent claims

19 and 20) of the '129 patent as “a number, numerical quantity, or element in a field.”<sup>2</sup>

*Compare* Gorman Exhibit 2, col.21, lns.50-61 (showing numeric values agreement scalars populating the agreement matrix) *and* Gorman Exhibit 1, construction of “scalar.”

*h) Selecting the Advertisement*

The claims of the '129 patent also select the advertisement for the particular consumer based on the correlation factor. Expanse has not construed this element; however, the specification of the '257 patent explicitly discloses such a selection. Specifically, the '257 patent provides that the “agreement matrix can also be used to select infomercials or other advertisements that the customer is most likely to watch.” See Gorman Exhibit 2, col. 47, lns. 63-65 (emphasis added). The data selected for the consumer can be a singular piece of data (i.e. one program or one advertisement) or can be multiple pieces of data (i.e. multiple programs or multiple advertisements). “If only one program were to be broadcast using the method of the invention, the above optimization problem is trivially solved by summing each column A (calculating  $\Sigma, ac_j$ ) and picking the program j which gives the largest value. When many programs are being selected, however, it is not possible to try all possible combinations; therefore, heuristic methods must be used.” See Gorman Exhibit 2, col.23, lns.46-52 (emphasis added). This would similarly apply to data in the form of targeted advertisements according to the '257 patent, just like the step in claim 17 of the '129 patent.

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<sup>2</sup> Catalina disagrees with Expanse’s construction of the single term “scalar” rather than two-word phrase “scalar product,” which has specific meaning in mathematics as discussed in Catalina’s *Markman* Brief. In any event, the calculation of a “scalar” in the '257 patent is a form of vector mathematics that determines the distance between vector values, which is remarkably similar to the scalar product form of vector mathematics claimed in the '129 patent. One of ordinary skill in the art would understand these calculations to be equivalent in function and would have understood the '129 patent’s “scalar product” to be

*i) Detailed Transaction/Purchase Records and Inventory*

Claims 19 and 20 of the '129 patent and claims 1 (and its dependent claim 8) and 17 of the '348 patent require detailed transaction or purchase records, which in claim 19 of the '129 patent includes an inventory which are used to generate the consumer profile. The parties stipulate that "retrieving detailed purchase records" means the previously stored purchase records, including a specific identifier and an identification of the products purchased by a consumer are retrieved from computer storage to be displayed and processed. Expanse has construed "detailed transaction records" to mean "records containing information regarding the specific purchases (i.e. may include product UPC code, as well as information about quantity, where and/or when purchased)." *See* Gorman Exhibit 1. Expanse also construed "inventory" in claims 19 of the '129 patent and 17 of the '348 patent as an "itemized summary of the transactions." *See* Gorman Exhibit 1.

As discussed above, the '257 patent collects and stores information regarding programs actually watched by the customer and uses that information to update the customer profiles. This information may include a customer ID (col.26, lns.37), a record of the day and time a program is watched (col.45, lns.27-30), a record of each program actually watched and the program's content (i.e. program genre, directors, actors, etc.) (col.6, lns.50-63; col.10, lns.7-8; and col.11, lns.45-52), and records of movie rentals (col.49, lns.54-58). Similar types of information may be used according to the '257 patent to create detailed purchase or transaction records, including an inventory of

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obvious in light of the disclosure of scalar calculation in the '257 patent.

purchases (like the record of each program watched), for purchases made by the consumer as in claims 19 of the '129 patent and 17 of the '348 patent.

*j) Predetermined Time Interval*

Claim 19 (and its dependent claim 20) requires that transactions over a predetermined time interval be used to generate the consumer profile. The concept of predetermined time intervals is plainly disclosed in the '257 patent. The method of the '257 patent includes storing information regarding date and time of programs watched, or analogously purchases made, over a period of time just like the "predetermined time interval" in claim 19 of the '129 patent (which has not been construed by Expanse). For example, the '257 patent specification provides that the "customers' set top multimedia terminals maintain a record of the video programs that are actually watched by the customer for a period of time (say, 10 minutes) sufficient to establish that the customer 'liked' that program." *See* col.25, lns.37-41 (emphasis added). Additional reference to the time nature of data collection used for updating the customer's profile is found throughout the '257 patent. *See e.g.*, col.11, ln.67-col.12, ln.2 ("each customer may be assigned a generic customer profile which is personalized over time through the profile adjustment techniques"); col.13, ln.66-col.14, ln.1 ("the system should account for the fact that many people's tastes change over time"); col.17, lns.42-44 ("Customer profiles used in accordance with the preferred embodiment of video scheduling preferably incorporate this concept of moods and time windows.").

*k) Set of Heuristic Rules and Defining a Probabilistic Measure of Demographic Characteristics*

Claim 20 of the '129 patent and claims 1 (and its dependent claim 8) and 17 of the

'348 patent all include a set of heuristic rules for defining a probabilistic measure of demographic characteristics of the consumer. According to Expanse's construction, a set of heuristic rules is "one or more rules that have been determined from learning, discovery, experiments or trial and error, inferences, educated guesses, market studies, human knowledge, experience or calculations." *See* Gorman Exhibit 1. Expanse has also construed "probabilistic measure" to mean "a quantity which is not certain, but which has a known or unknown probability associated with it." *See* Gorman Exhibit 1. Finally, "demographics characteristics" according to Expanse is the "traits, qualities or properties that are associated with human demographics, such as age, gender, ethnicity, lifestyle, income, or other characteristics that could be reported as a demographic." *See* Gorman Exhibit 1.

The '257 patent discloses heuristic rules for defining a probabilistic measure of demographics characteristics according to Expanse's constructions. For example, the '257 patent recognizes that parents are more likely to watch programs in the evening and children more likely in the afternoon. *See* Gorman Exhibit 2, col.5, lns.37-43. Accordingly, time of day is a heuristic rule for predicting the probability that either parents or children are viewing programs, which is indicative of demographics related to age and households with children.

In addition to typical demographic characteristics (age, race/ethnicity, gender), the '129 and '348 patents explicitly define demographic characteristics as including "interest categories." *See* Gorman Exhibit 5, col.7, lns.22-35; Gorman Exhibit 6, col.6, lns.55-67. These interest categories include "broad areas such as music, travel, and restaurants,"

with specific examples of different music genres, "country music, rock, classical, and folk." *See* Gorman Exhibit 5, col.7, lns.22-35; Gorman Exhibit 6, col.6, lns.55-67. Additionally, travel categories, including travels out of the state more than twice a year and travels by plane more than twice a year. *See* Gorman Exhibit 5, col.7, lns.33-35; Gorman Exhibit 6, col.6, lns.65-67. The '257 patent plainly discloses heuristic rules for predicting that a consumer probably fits within one of these types of "interest categories," and therefore predicts a demographic characteristic within the meaning of the '129 and '348 patents.

One such heuristic rule related to an interest category disclosed in the '257 patent relates the number of broadcasts of a particular program genre (i.e. golf programs) during a time period (i.e. a week) to the consumer's level of interest in that program genre. *See* Gorman Exhibit 2, col.57-65. Golf programs qualifies as an interest demographic under the '129 and '348 patents just like rock and folk music. The '257 patent states:

Similarly, when many similar programs are shown over a short span of time, there is viewer "burnout". In other words, if the same movie is shown repeatedly over the course of a month, it will get fewer viewers on later showings. As another example, if many golf programs are broadcast during a week, each customer's desire to watch golf will saturate, and viewership will decay. Predictions of what a customer will want to watch only makes sense if they have not watched the same (or almost identical) show recently.

Gorman Exhibit 2, col.28, lns.57-65. A similar heuristic is disclosed in the '257 patent related to use of the invention in video stores. The invention of the '257 patent may be used in video stores to help customers decide which videos to rent. *See* Gorman Exhibit 2, col.49, lns.32-35. The customer uses his or her ID number (membership card) when renting videos and the computer keep track of each video rented by the particular

customer. *See* Gorman Exhibit 2, col.49, lns.38-51. Using these rental records, the computer creates a profile of the customer and suggests movies that may be of interest to the customer. *See* Gorman Exhibit 2, col.49, lns.32-35. However, it is generally known that a customer will not want to watch movies they have previously rented (i.e. a heuristic rule regarding burnout), so those movies will be removed from the suggestions for that customer. *See* Gorman Exhibit 2, col.49, lns.54-57. As such the customer has a profile of suggested movies of interest that excludes previously rented movies.

The '257 patent also discloses using information regarding clusters of customers to update profiles of individual customers within the cluster. The heuristic associated with this aspect of the '257 patent is that if customers have one thing in common, such as a common demographic, then they are likely to have other things in common, such as other demographic characteristics or preferences for programming or products. *See* Gorman Exhibit 2, col.34, lns.24-25 ("There is a long tradition of clustering people based on demographic or other data..."); col.34, lns.58-59 ("the purpose of clustering is to grouped objects with high similarity"). The '257 patent discusses the application of this type of heuristic rule:

Once clusters have been determined, they can be used in several ways. As the profiles for the clusters are updated based on what the customers in the cluster watched, the profiles for individuals in the cluster can be similarly updated. Thus, customer profiles can be updated both based on what they watch and on what customers with similar tastes watch.

*See* Gorman Exhibit 2, col.34, lns.49-55. The specification further provides:

The clustering method of the invention may also be modified to include sociodemographic profiles of customers. Such information may include ages, gender, and race, as well as other information provided by

the customers themselves. On the other hand, the clustering data may include census data such as zip code data. For example, as noted above, a zip code may be used as one way to categorize the customer profiles of the customers whereby a new customer to a system would get one or more of a number of generic customer profiles for a particular zip code as his or her initial customer profile. The initial customer profile would then be modified as that customer's viewing habits are established. As noted above, such modifications may be accomplished using psychographic data, customer preference profiles input directly by the customer, past movie selections, rave reviews, passive feedback based on actual television viewing by that customer, records of customer purchases, and the like.

*See* Gorman Exhibit 2, col.48, lns.5-22. The '257 patent clearly discloses a heuristic rule for predicting probable demographic characteristics of one consumer based on the demographics of other consumers with whom the consumer has something in common.

Similarly, the '257 patent also discloses a more direct heuristic rule for predicting interest category demographics based on grouping individuals with similar tastes or interest areas. That heuristic rule is "if two people have liked many of the same movies or shows in the past, then they are likely to continue to like similar movies or shows."

*See* Gorman Exhibit, 2, col.38, lns34-37. "More precisely, if a person 'A' has *seen* and liked many movies or shows which a second person 'B' has *seen* and liked, then 'A' is likely to like other movies or shows which 'B' liked." *See* Gorman Exhibit 2, col.38, lns.37-40. To carry this example out, if A and B's viewing or purchasing records show that they have watched the same 5 comedy programs or purchased the same 5 children's movies on DVD in the last month, and B has a history of also watching soap operas or purchasing action movies on DVD, then A is likely to also have an interest in soap operas or purchasing action movies.

A cross-media correlation heuristic is also disclosed in the '257 patent. According

to the '257 patent, the method of the invention includes “using the profile from one media to estimate the customer preference for another media,” for instance “to predict that an avid customer of sports programs could also be very interested in obtaining sports or news information or information regarding the purchase of sports memorabilia based on his or her viewing preferences.” *See* Gorman Exhibit 2, col.51, lns.45-52. Similarly, “listeners of a particular type of music may also be interested in purchasing concert tickets for the same or similar types of music.” *See* Gorman Exhibit 2, col.45, lns.52-55. These heuristic rules are used to indicate interest category demographics like those in the '129 and '348 patents.

The '257 patent further discloses “statistical estimation” of the characteristics in the consumer’s profile and determining those characteristics “empirically” by monitoring the consumer’s viewing habits. *See* Gorman Exhibit 2, col.11, lns.34-34 and lns.63-66. These references indicate probabilistic determinations of the characteristics in the consumer’s profile. Additionally, the '257 patent explicitly recognizes using “heuristic methods” for selecting suitable programs among the many possible programs available for customers. *See* Gorman Exhibit, col. 23, lns.46-52. It is evident that the '257 patent discloses heuristic rules for defining a probabilistic measure of demographic characteristics under Expanse’s construction of claim 19 of the '129 patent and claims 1 (and dependent claim 8) and 17 of the '348 patent.

*l) Product Characterization Information*

Claim 1 of the '348 patent (and its dependent claim 8) includes the step of retrieving product characterization information associated with products in the purchase

records. Expanse has construed “product characterization information” to mean “information, including product description, that relate to products.” *See* Gorman Exhibit 1. The '257 patent discloses such information associated with the programs viewed by the customers. This information is similar to the stored content profile discussed above, which may include a record of the content (i.e. program genre, directors, actors, etc.) for each program actually viewed by the customer. *See* Gorman Exhibit 2, col.6, lns.50-63; col.10, lns.7-8; and col.11, lns.45-52. The content characterization information may also “be value based by indicating the scientific, socio-political, cultural, imagination evoking, or psychological content as well as the maturity level to which the program appeals.” *See* Gorman Exhibit 2, col.11, lns.55-58. This is the type of information, including product description, that relate to products that falls with Expanse’s construction. Similar types of information may be used according to the '257 patent to create product, rather than program, characterization information as in claim 1 (and dependent claim 8) of the '348 patent.

*m) Product Preference Profile*

Claim 8 of the '348 patent requires that the consumer profile include a product preference profile. According to Expanse, a “product preference profile” is “a description of one or more significant features, characteristics, or brand of a product or products preferred by the customer.” *See* Gorman Exhibit 1. The '257 patent is primarily directed toward generating a program preference profile for the customer based on the customer’s viewing habits. *See* Gorman Exhibit 2, col.4, lns.40-43 (“In accordance with the preferred method, objective customer preference profiles are obtained and compared

with content profiles of the available video programming.”) (emphasis added); col.48, lns.5-22 (“As noted above, such modifications may be accomplished using psychographic data, customer preference profiles input directly by the customer, past movie selections, rave reviews, passive feedback based on actual television viewing by that customer, records of customer purchases, and the like.”) (emphasis added). Specifically, the '257 patent specification states that one of the steps of the method disclosed is “updating each customer profile in accordance with the content profiles of the video programs actually watched by that customer to update each customer's actual preferences for the predetermined characteristics.” *See* Gorman Exhibit 2, col.6, lns.53-55. As the '257 patent discloses using the claimed invention to target advertising based on the consumer's actual purchases, the profile of customer preferences for programming is easily analogized to a product preference profile like that claimed in claim 8 of the '348 patent.

From this description, particularly in context with the disclosure of the '257 patent as a whole, it is evident that each of the elements claimed in the claims at issue were disclosed in the '257 patent. Therefore, each of the claims at issue is invalid under §102(e).

### **C. INVALIDITY OF CLAIMS BASED ON CATALINA'S PRIOR PUBLIC USE OF CHECKOUT DIRECT**

Catalina's Checkout Direct program offers targeted promotions based on a consumer's purchase history indicating that the consumer has purchased items that generally fit within a particular product preference or demographic category, such as loyal to Oscar Meyer hot dogs or households with children. *See* Declaration of Jack Hickman (“Hickman Declaration”) filed concurrently herewith at ¶¶12, 17. Checkout

Direct uses a matrix structure to search a consumer's purchase history for certain predetermined products or amounts spent that are considered to be associated with that loyalty or demographic based on educated guesses, market studies, human knowledge, or experience made by the person or persons who create the matrix. An example of one such matrix for identifying households with children, and the list of UPC numbers for products that are generally considered to be associated with households with children, is attached as Hickman Exhibit JH5. Another matrix for identifying households with women is attached as Hickman Exhibit JH6. *See also*, Hickman Exhibits JH7-JH8. The list of UPC numbers is then compared to the purchase histories of particular consumers to identify those consumers who should receive a promotion targeted at households with children. The Checkout Direct promotions are delivered to the purchaser at the store's checkout.

Expanse has accused Checkout Direct of infringing each of the claims at issue. Checkout Direct has been publicly used by Catalina since at least as early as 1994. *See* Hickman Declaration, ¶30. Catalina's argument that Checkout Direct anticipates the claims of the '129 and '348 patents under §102 under Expanse's construction is based on Expanse's claim that Checkout Direct infringes and is not an admission that Expanse's construction is correct or that Checkout Direct infringes the claims as properly construed. To the extent Expanse is able to establish that Checkout Direct infringes, the claims must be invalid because Catalina was publicly using Checkout Direct prior to the critical date.

### **1. Checkout Direct is a §102(b) Prior Public Use**

The '129 and '348 patents are invalid under §102(b) if all claimed elements were

in use or on sale in the United States or described in a printed publication anywhere in the world more than one year before Eldering filed the applications leading to the '129 and '348 patents. *See* 35 U.S.C. §102(b). The '129 and '348 patents were filed on March 12, 1999, but claim priority to an earlier application filed on December 3, 1998. Therefore, for purposes of §102(b), an invalidating prior use or publication must have occurred on or before December 3, 1997 (the "critical date").<sup>3</sup>

Catalina announced its Checkout Direct program in 1992 and began using it commercially in 1994. *See* Hickman Declaration, ¶30. A Checkout Direct matrix used to target consumers identified as households with children based on the products purchased by the consumers was used during or prior to November 1997. *See* Hickman Declaration, ¶¶31, 32 and Hickman Exhibit JH5. This use is earlier than the December 3, 1997 critical date for the '129 and '348 patents under §102(b). A date earlier than November 1997 date is established by the number assigned to this matrix (900896).<sup>4</sup> *See* Hickman Declaration, ¶¶31, 32, Hickman Exhibit JH5. Similar matrices were used by Catalina as part of its Checkout Direct program prior to November 1997. *See* Hickman Declaration, ¶31 and Hickman Exhibits JH8-JH8. The basic structure of Catalina's Checkout Direct program was known in the industry at least as early as November 1992. *See* Thissen Declaration, ¶ 11 at Gorman Exhibit 13. Based on these dates, Catalina's

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<sup>3</sup> Catalina does not challenge Expanse's claim of priority to the December 3, 1998 application for purposes of summary judgment only. At trial, Catalina expects to show that Expanse is not entitled to claim priority to the December 3, 1998 application.

<sup>4</sup> The matrices in Hickman Exhibits JH5-JH8 each have a "creation date" of May 9, 2004; however, that is actually the date the documents were printed for purposes of this litigation. Catalina uses consecutive numbering for its matrices. Matrices with numbers lower than 902121 were actually created before November 11, 1997. Therefore, each of the matrices in Hickman Exhibits JH5-JH8 were actually created prior to November 1997. *See* Hickman Declaration, ¶¶30, 31.

Checkout Direct program qualifies as a §102(b) prior art reference.

**2. Expanse Asserts That Checkout Direct Infringes Claims 1, 3 and 17 of the '348 Patent and 17, 19 and 20 of the '129 Patent.**

As explained above, Catalina's Checkout Direct program constitutes a public use of each element claimed in claims 17, 19, and 20 of the '129 patent and claims 1, 8, and 17 of the '348 patent. Therefore, the '129 and '348 patents are invalid under §102(b) if the claims are interpreted to cover Checkout Direct as argued by Expanse. It is well established that "that which would literally infringe if later in time anticipates if earlier than the date of invention." *Lewmar Marine, Inc. v. Bariant, Inc.*, 827 F.2d 744, 748 (Fed. Cir. 1987), cert. denied, 484 U.S. 1007 (1988).

**D. INVALIDITY OF CLAIMS BASED ON CATALINA'S PRIOR PUBLIC USE OF ONE-TO-ONE DIRECT**

Catalina's One-to-One Direct uses the same process as Checkout Direct for identifying loyalty card numbers that meet certain criteria defined in a matrix as Checkout Direct. The only difference between One-to-One Direct and Checkout Direct is the delivery method and the type of promotion delivered. In One-to-One Direct, the targeted promotion is delivered via mail, whereas the promotion is delivered at the store's checkout in Checkout Direct. Additionally, One-to-One Direct generally involves mailing a set of coupons, a magazine containing coupons, or samples.

As with Checkout Direct, Catalina's One-to-One Direct program offers targeted promotions based on a consumer's purchase history. An example of one such targeted promotion is the September 1997 Family Favorites lifestyle magazine that includes coupons for family-friendly products. A copy of Family Favorites is attached as

Hickman Exhibit JH13. This targeted promotion would be based on a matrix for identifying households with children, including the list of UPC numbers for products that are generally considered to be associated with households with children. *See* Hickman Exhibit JH8. Consumers would receive this targeted promotion if the products in their purchase histories indicate that they meet the criteria established in the matrix and associated list of UPC numbers.

The '129 and '348 patents are invalid under 35 U.S.C. §102(a) if each claimed element was known or used by others in the United States or described in a printed publication anywhere in the world prior to is described in a patent granted on an application for patent by another before Eldering invented the inventions claimed in the '129 and '348 patents. *See* 35 U.S.C. §102(a). As discussed above, Expanse has not provided any evidence that the inventions claimed in the '129 and '348 patents are entitled to an invention date any earlier than December 1, 1998. *See* Gorman Exhibit 3, April 28, 2004 Deposition of Eldering, pp.180-181. Therefore, a prior public use or publication is a §102(a) reference if it occurred on or before November 30, 1998. Similarly, the patents are invalid under §102(b) if each claimed element was in use or on sale in the United States or described in a printed publication anywhere in the world on or before December 2, 1997.

Catalina has been offering its One-to-One Direct program since at least September of 1997. *See* Hickman Exhibits JH8 and JH13 (Family Favorites magazine and coupons dated September 1997 which is directed at households with children, such as those households identified according to the lifestyle matrix for households with

children). Additionally, as discussed above, the household with children matrix was created before November 11, 1997.<sup>5</sup> *See* Hickman Declaration, ¶31. Catalina's use of One-to-One Direct was public because Catalina described the program in a presentation to its customers. A copy of one such presentation is attached as Hickman Exhibit JH12. This presentation provides target mailing dates between May 15, 1998 and November 15, 1998 for particular event themes such as "Summer Solutions (Families)" and "Light Living II." *See* Hickman Exhibit JH12, CATA 009801. Based on these dates, Catalina's One-to-One Direct program qualifies as both a §102(a) and a §102(b) prior art reference.

For the reasons discussed above with respect to Checkout Direct, Catalina's One-to-One Direct program was a public use of each element claimed in the claims at issue of the '129 and '348 patents. Therefore, claims 17, 19, and 20 of the '129 and claims 1, 8, and 17 of the '348 patent are invalid under §102(a) and §102(b) if the claims are construed to cover Checkout Direct as argued by Expanse.

#### **E. INVALIDITY OF CLAIMS BASED ON PRIOR PUBLIC USE OF TARGET VONS**

Target Vons was a targeted marketing program created in 1993 by Mike Hendry for Vons Companies, Inc. ("Vons"), a grocery chain. *See* Gorman Exhibit 10, Declaration of Mike Hendry, ¶ 2. Target Vons was based on the idea of using purchase history information from Vons customer card program, "VonsClub," to offer targeted marketing to manufacturers. The program offered manufacturers the ability to target customers based on purchase behavior. *See id.*, ¶ 4. The Target Vons program is

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<sup>5</sup> The matrix in Hickman Exhibit JH8 has a "creation date" of May 9, 2004; however, that is actually the date the document was printed for purposes of this litigation. The matrix in Hickman Exhibit JH8 was actually created prior to November 11, 1997. *See* Hickman Declaration, ¶31.

described in detail in Exhibit MH.1. Exhibit MH.1 is a true and correct copy of a brochure Vons circulated to manufacturers in 1993 to promote the Target Vons program. *See id.*, ¶ 2. Exhibit MH 3 is a true and correct copy of a Target Vons mailer delivered to the public in 1993. *See id.*, Hendry Exh. 1, p.10.

**1. Target Vons is a §102(b) Prior Public Use**

The '129 and '348 patents are invalid under §102(b) if all claimed elements were in use or on sale in the United States or described in a printed publication anywhere in the world more than one year before Eldering filed the applications leading to the '129 and '348 patents. *See* 35 U.S.C. §102(b). The '129 and '348 patents were filed on March 12, 1999, but claim priority to an earlier application filed on December 3, 1998. Therefore, for purposes of §102(b), an invalidating prior use or publication must have occurred on or before December 3, 1997 (the “critical date”).

Target Vons was first used to distribute targeted promotions for manufacturers in 1993. *See* Gorman Exhibit 10, Hendry Decl., ¶ 3. The program was used from 1993 until at least 1998. Therefore, the program was in public use in the U.S. for four years prior to the critical date. Additionally, the Target Vons was described in a printed publication in 1993. Accordingly, Target Vons is prior art under § 102 (b) and invalidates the '129 and '348 patents if it contains all claim limitations.

**2. To the Extent the Claims of the '129 and '348 patent are construed to cover Catalina's currently-offered products, the claims necessarily cover Target Vons, and are therefore, invalid.**

Target Vons is very similar to Catalina's Checkout Direct and One-to-One Direct products. Both programs allow manufacturers to target households based on purchasing

behavior. *See id.*, ¶ 4. Both Target Vons and One-to-One Direct select which consumers will receive promotions using sets of triggering products. *See id.*, ¶ 6. Both programs search the consumer purchase records against the list of triggering products to determine which consumers will receive the promotions. *See id.*, ¶ 8.

To the Extent Target Vons is different from Checkout Direct and One-to-One Direct, Target Vons, Target Vons is even closer to the claims of the '129 and '348 patents than either Checkout Direct and One-to-One Direct. First, unlike the Catalina products, Target Vons attempted to identify and categorize products which correspond to "LIFESTYLE" groups, which included demographic characteristics such as "Baby," and "Ethnic." *See id.*, ¶ 6. Catalina, on the other hand, believes that targeting based on direct correlation between purchases of different products is more accurate than attempting to determine demographic information about a consumer, as described in Catalina's Motion for Summary Judgment of Non-Infringement. Second, unlike the Catalina products, Target Vons maintained certain "LIFESTYLE" information associated with individual consumers. *See id.*, ¶ 6. That is, if a triggering search for the LIFESTYLE Baby returned a particular consumer ID, data would sometimes be kept in that consumer's records that the consumer had been associated with the Baby LIFESTYLE group. *See id.*, ¶ 9. Therefore, because Target Vons was in public use four years prior to the critical date and is as close or closer to the claims of the '129 and '348 patents, if those claims are construed to cover Catalina's products, then the claims are invalid over Target Vons.

#### **F. INVALIDITY OF CLAIMS BASED ON THE '764 PATENT**

The disclosure of U.S. Patent No. 5,930,764 (the '764 patent) is another §102(e) invalidating prior art reference for the '348 patent. The '764 patent was filed on August 23, 1996 and issued on July 27, 1999. A copy of the '764 patent is attached to the Gorman Declaration at Exhibit 7. The disclosure of the '764 patent related to the creating a consumer profile based on purchase history and heuristic rules like that claimed in the '348 patent is much simpler than the disclosure of the '257 patent, or even the explanation of prior public uses of Checkout Direct, One-to-One Direct, and Target Vons. The Court is by now familiar with the claim terms at issue and a detailed analysis of the '764 patent is not necessary.

The relevant disclosure in the '764 patent is as follows:

The household demographics screen displays appended household information purchased from outside sources. This screen may also display information that is inferred from other information about the customer. For example, repeated usage of a credit card at a baby supply store might be used to infer that the customer has one or more small children.

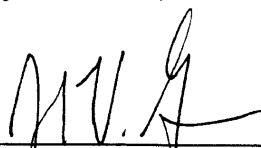
Gorman Exhibit 7, col.36, lns.17-23. This plainly discloses a computer implemented method for creating a consumer demographic profile based on purchase records and a heuristic rule as claimed in the '348 patent. The purchase records are evident from "repeated usage of a credit card at a baby supply store." The heuristic rule is that repeated purchases at a baby supply store means the consumer is more likely to have "one or more small children," which is also a demographic characteristic assigned to that consumer as a profile.

**III. CONCLUSION**

For the reasons stated herein, claims 17, 19, and 20 of the '129 patent and claims 1, 8, and 17 of the '348 patent are invalid under §102. Each of the elements of these claims are disclosed in the prior art publications discussed above and were in public use by Catalina or others prior to the relevant critical date.

Date: June 25, 2004

Respectfully Submitted,



/JVG2384

Eric Kraeutler (Pa. Bar No. 32189)  
John V. Gorman (Pa. Bar No. 80631)  
MORGAN, LEWIS & BOCKIUS LLP  
1701 Market Street  
Philadelphia, PA 19103  
Telephone No.: (215) 963-5000  
Facsimile No.: (215) 963-5001

John W. MacPete  
Paul V. Storm  
STORM & HEMINGWAY, L.L.P.  
8117 Preston Road, Suite 460  
Dallas, TX 75225  
Telephone No.: (214) 292-8300  
Facsimile No.: (214) 292-8999

**ATTORNEYS FOR DEFENDANT  
CATALINA MARKETING CORP.**

**CERTIFICATE OF SERVICE**

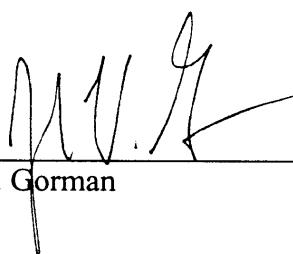
The undersigned certifies that a copy of the foregoing **DEFENDANT'S BRIEF IN SUPPORT OF ITS MOTION FOR SUMMARY JUDGMENT OF INVALIDITY OF THE '129 AND '348 PATENTS** was served upon the attorneys of record of all parties in accordance with Federal Rules of Civil Procedure, on this 25<sup>th</sup> day of June, 2004, addressed as follows:

**VIA FIRST CLASS MAIL**

Steven M. Coren, Esq.  
1525 Locust St., 17<sup>th</sup> Floor  
Philadelphia, PA 19102  
Tel: (215) 735-8700  
Fax: (215) 735-5170

**VIA E-MAIL**

Edward W. Goldstein  
GOLDSTEIN & FAUCETT  
1177 West Loop South, Suite 400  
Houston, TX 77027  
Tel: (713) 877-1515  
Fax: (713) 877-1737



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John V. Gorman